THE REGULATION OF PUBLIC SERVICE CORPORATIONS

THE VAGARIES OF VALUATION

By John H. Gray
The University of Minnesota

It is becoming increasingly plain that the industries under consideration ought to be monopolies, and that privately owned unregulated monopoly in industries so vitally necessary to our social welfare is unthinkable. The practical danger from monopoly is greatly increased by the constantly growing tendency towards consolidation of ownership and private control.

The degree to which actual combination is threatened is illustrated by the recent attempt to combine all English employers' associations into a single federation to fight the labor unions, and to start this organization on its militant course with a war fund of about $250,000,000 in cash.[1] If such an organization can be formed to fight the unions, it may be used against the public to maintain rates, prevent regulation, or in such manner as its managers think best, and may easily become more powerful than the state.

The Pioneer Spirit.

No human institution can be judged solely by its bare form, but must be considered in connection with the spirit of the people concerned. Let us see how the spirit of the pioneer is related to the life and status of public service industries. The virtue of a true pioneer consists in developing and exploiting natural resources and in hastening the time when any particular state, or locality, shall have sufficient population and wealth to enable it to provide what are considered the fundamental essentials of modern civilization, such as roads, schools, churches, bridges, and the like. So long as natural resources seem unlimited, as was the case in this country until very recently, the most admirable citizen is he who exploits most energetically and rapidly, and as a consequence probably acquires the largest personal fortune; for the good he does, in a new community, in making possible the conveniences of civilization,

[1] *U. S. Daily Consular Reports,* October 21, 1913.

is palpable and unmistakable, and, by mere supposition, the harm that he can do is relatively slight, because of the unlimited resources. For, so long as resources are unlimited, the objectionable exploitation of persons is impossible, because the circumstances give every one a chance to escape from real exploitation and to do as the successful exploiter does. In other words, the unlimited natural resources give substantial equality of opportunity.

Speculation, the Essence of Pioneer Life.

The pioneer risks his life and his fortune every day with the recklessness of a true soldier in battle. Not his own safety, but the excitement of the game and the final outcome are his consciously controlling motives.

In such an atmosphere the good man and the good fighter is never easily amenable to discipline or very conscious of the fact or necessity of coöperative work. He expects to take care of himself, to ask and to give no quarter. He gains fame and fortune, when he is successful, and goes down without sympathy from others, or conscious regret on his own part, when he fails of his immediate object. Like St. Paul, he has fought a good fight, and that is sufficient for him.

Conditions, but not the Sentiments of the Owners of Public Utilities, have Changed.

Our life in this country is no longer cast under pioneer conditions as regards our public utilities. Our natural resources are virtually all appropriated if not exhausted; our population, mixed and congested in great cities, and divided into economic and social classes. We have the greatest inequality in the distribution of wealth the world has ever seen, and the greatest degree of concentration and control of that wealth. Today, when one successfully exploits natural resources in the pioneer way, he deprives others, not only of exploiting in the same manner, but even of the right of attaining a decent living. In short, the needs of today point in one direction; the honest beliefs and actions of those in control of our public utilities go in the opposite direction. As Taussig[1a] said twenty years ago, "What the American community now needs more than anything else is a bracing and improvement of its political

[1a] *Political Science Quarterly,* vol. IX, p. 587 (1894).

machinery. Good government, as an end in itself and as an essential preliminary to social ends even more difficult to achieve, is now our most vital concern."

The Character of Those in Control of our Wealth.

The day for hostility towards and attack upon individuals is happily past. Those in charge of our public utilities are human, and are probably as honest and somewhat more courageous than the rest of us are. They are merely, in action and belief, pioneers and the sons of pioneers.

The Pioneer Believes in Competition.

It is not a question of personal honesty or dishonesty, but merely of a difference of philosophy as to what constitutes human progress and how that progress is to be achieved. The pioneer believes in unrestrained individualism and reckless competition. The condition and the history of our utilities in America today illustrate most clearly the conflict between the savage and destructive doctrine of competition as taught by the so-called orthodox economists, and the modern democratic doctrine of an equal opportunity for all, with the state (using that term in its generic sense) as an impartial arbiter between the parties. For, however legally and personally free we may be, we are economically so unequal in strength as to make the very term "competition" in this connection a misnomer.

Historical Survey of Utilities.

From time immemorial, common carriers and other industries classed legally as utilities have nominally been subject to regulation by the sovereignty. But the law has not yet recognized the economic basis of control or classed as utilities the major portion of industries that economically belong in that category. All competent students know that the legal classification is misleading, and that when any important industry ceases to be subject to competition, the economic grounds for public regulation exist, and for classifying the industry as a public utility. In fact, the whole idea of public regulation rests on the recognition of the monopolistic character of the undertakings. More significant still than the incomplete basis of classifying industries is the fact that until after the case of Munn *vs.* Illinois,[2] in 1876, there was no thought of set-

[2] 94 U. S. 105.

ting up any governmental agency to enforce the law. Competition was, in fact, the sole reliance for protecting the consumer, and the investor was left practically unprotected. It is unnecessary to remark that the supposed remedy was utterly futile, for it involved the danger, expense, and delay of a private suit in a court of law. This was in fact no remedy at all, and the industry remained unregulated.

The Era of Commission Control.

It is clear to all that with our modern machinery, minute divisions of labor, world markets, and large cities, it is more important that what are economically public utilities should be conducted on a scheme adequate to the growing needs, continuously and progressively, at fair and just prices, and with equal justice to all, than that the system of taxation, federal, state, or local, should be just and equal, or that almost any other recognized governmental functions should be efficiently and honestly administered. In fact, it is not too much to say that whoever really controls the public utilities, and determines the extent and apportionment of their burdens, controls the destiny of the nation.

Newness of the Idea of Commission Control.

We have very recently entered upon the experiment of administrative control through central commissions. But we have failed entirely to grasp the significance of the problem, or the steps necessary to solve it, if we fail for a moment to remember that until the establishment of the Board of Gas Commissioners in Massachusetts in 1885, no industries, save that of transportation, were classed as utilities, and that the other states have been very slow to follow the lead of Massachusetts in this matter. In fact, it is only within the last decade that the problem may be said to have been taken up seriously by the country as a whole. That is altogether too short a time to adjust the law, the theories, or the practices to the economic needs and conditions of the situation. Much more is it too brief a period in which to have modified to any considerable degree the pioneer philosophy that still dominates the private owners of these industries.

The Resulting Chaos.

The scientific theory is that the utilities should render adequate, safe, and universal service, at just, reasonable, and fair prices to

all, and that the sovereignty shall be the final judge in every case of these matters. This statement implies, of course, that the total gains or rewards of the owners shall be reasonable under all the circumstances, including that of virtually guaranteed monopoly, and that they shall have just compensation in case of expropriation. If the state is not able to enforce this policy to the satisfaction of the people, then, for good or ill, the state will take over and operate all public utilities. This not only will be the outcome, but it ought to be. Any other policy paves the way for economic slavery and consequent revolution. Furthermore, the people ought to be, and will be, the judges in the long run of whether or not the public regulation is adequate and satisfactory.

So far, it may be truly said that regulation has not been effective, and that the only important effects of the attempt at regulation have been to arouse a wide-spread, but unorganized, public interest in the question, to diffuse some considerable information as to the nature of utilities, and to put the people on their guard. The pioneer sentiment of those in control of the industries has as yet undergone no significant change. They have, indeed, by methods to be explained later, taken marked advantage of the underlying theory of regulated monopoly to get rid of some of the practical risks of raids and so-called competition, while believing in, claiming, and successfully maintaining the chance of speculative gains that belong to the pioneer stage of competition. In short, they are enjoying most of the advantages of actual monopoly without giving up any of the chances of speculative gains in exchange for it.

We have here a close parallel to the theory proclaimed by the Republican party almost a generation ago, that the protective tariff ought to be reformed, but that it must be reformed by its friends, not its enemies. The result of this doctrine was that its friends never reformed the tariff. The owners of the utilities have likewise insisted that they must determine the kind and degree of regulation to be exercised over them. This is well brought out in the veto by Governor Foss of Massachusetts of the Public Utilities Bill, June, 1913. He says he vetoed the bill because the companies threatened to kill, and would have killed it, if they had not obtained authority by it for double the amount of debt heretofore allowed, and that regulation which requires the consent of the persons to be regulated is leaving the industries to regulate themselves. But the fact that they have failed to regulate themselves in a manner satis-

factory to the public furnishes the sole occasion for public regulation.

About the only real and practical gains to the public so far, from the attempts at regulation, have been the abolition of some of the grosser forms of discrimination and the introduction of a greater degree of stability in the rates. These are indeed gains, both for the public and the companies, not to be ignored.

The Regulation of Rates.

So far as the control of rates is concerned, there are three main elements involved in the problem of regulation: first, the amount on which the owners are entitled to a fair return; second, the fair rate of return under the circumstances of each case; third, the rate of charge that will make such return. It will readily be observed that the fair return is the product of the rate of charge and the base amount over which the rate of return must be spread.

But five central commissions[3] deserve attention in the attempt to determine what progress has been made in this field. They are; first, the Massachusetts Board of Gas and Electric Light Commissioners—the oldest—(1885); second and third, the two Public Service Commissions of New York (1907); fourth, the Wisconsin Railroad Commission (1905-1907); fifth, the Interstate Commerce Commission (1887-1906). With the exception of the Massachusetts commission, none of these go back a decade, so far as the points now under consideration are concerned.

The Present Situation.

Under the interpretation of the division of powers, and especially the mistaken interpretation given by the final authority to the fourteenth amendment to the Federal Constitution, the commissions have proved but fifth wheels to the carts. The courts in the last instance have been the controlling bodies. This will continue to be the case until the constitution is changed by formal action or by interpretation. But there is no reason for despair in this fact. For in the long run the people will compel the courts to follow public opinion even if constitutional amendments are required.

[3] I omit all discussion of the attempt to regulate by means of a municipal commission. The St. Louis Commission alone among local commissions has done notable work. That commission has now been abolished and its powers transferred to a state commission.

Theory of Rates.

There can be but two really sound theories of rates: (1) the competitive theory; (2) the agency theory. While it is true that, in practice, we are trying a mongrel combination of these two theories, it is equally true that in doing so we are going further and further astray. If the first theory, that of competition, is to prevail, there is no need of any regulation. In fact, however, the idea of competition has not only been given up in theory, but is wholly inconsistent with the idea of public regulation. The public did abandon, or, at least, ought to have abandoned, this theory entirely when it entered upon the experiment of commission regulation.

The second theory, that of principal and agent, is the only one upon which we shall ever be able to arrive at a satisfactory relation between the public and the utilities. The utility, legally speaking, in the fullest sense of the term, is a public enterprise: one which the public has not only the right but equally the duty to own and operate, unless it finds it more to the public advantage to employ an agent, the public utility company, to build and operate the utility for it. This principle is thoroughly established both in law and in economics. Justice Harlan in Smyth *vs.* Ames (1898) said:

> A railroad is a public highway, and none the less so because constructed and maintained through the agency of a corporation, deriving its existence and powers from the state. Such a corporation was created for public purposes. It performs a function of the state. Its authority to exercise the right of eminent domain and to charge tolls was given primarily for the benefit of the public.

And this has been the law of the land from that day to this. In a railroad case the principle was well stated in a minor court in the following language:[4]

> The road once constructed is, instanter, and by mere force of the grant and law, embodied in the governmental agencies of the state and dedicated to public use. All and singular, its cars, engines, rights of way and property of every description, real, personal and mixed, are but a trust fund for the political power, like the functions of a public office.

The theory is well stated by Mr. Walter Fisher,[5] who says:

> Indeed the most important features of our railroad law are squarely

[4] *Talcott* vs. *Pine Grove*, U. S. Circuit Court, Western Division of Michigan, 23 Fed. 652.

[5] Pamphlet, *Alaskan Coal Problems*, Washington, 1911, p. 21.

based, and depend, upon this theory of the relation of the railroads to the functions of government. What has happened, then, with respect to railroads, is, simply, that the government has delegated one of its own functions to private agencies for what at the time are believed to be considerations of wise expediency. If, for reasons of equal expediency, the government decides at any time or place to resume its true function it cannot be said in any sense to be invading the rights of private enterprise.

Here we have the fundamental and basic doctrine of principal and agent. I shall attempt to show that the moment we depart an iota from this doctrine we are lost, for in such departure we pass at once from the realm of fact into the region of fiction.

We have been forced by judicial error at this crucial point into making valuations the corner stone of regulation. As a consequence we have been forced into a mass of absurdities in the decisions of commissions as well as of courts. The briefest statement of the theory of principal and agent will suffice. An agent is entitled to a just compensation for his services, including his outlay of money for the principal, but in no case to any gains or profits on any transaction undertaken or carried on for his pricipal. *Nor is it material in his relation whether title*[6] *to property connected with his agency is in him or in his principal.* An agent who buys ordinary horses for his principal and discovers that one of them turns out to be a valuable race horse is not entitled to the profits made by selling this horse, but must turn the same over to his principal.

It should be carefully noted, however, that where the agent acts within the scope of his agency, in good faith and honestly, any losses fall upon the principal, not the agent. These losses, real and fictitious, in the public utility play a large role in the whole question. Within the limits named, the agent has no chance for speculative gains, such as are still permitted in private business, and all losses fall upon the principal. More of the losses later, when we come to deal with the problems of "going cost," "going concern," "cost of developing business," and the losses of the early lean years in the infancy of an undertaking. The gist of regulation is a regulation of rates. In practice, we have made appraisals and valuations the basis of rate regulation. This is fallacious from the start and has always led to undesirable results and to the absence of

[6] The interurban road that owns outright its right of way is as much subject to control as a street railway or a steam railway that has an easement only in the streets and public places.

real regulation, for in the business world value depends entirely on estimated returns or earnings, but returns depend on rates, and the circle thus becomes complete.

On any sound principle there should be no valuation for rate regulation but history, that is, a statement of outlay, of money spent and services rendered, nothing more. Messrs. H. P. Gillette and Max Thelan have made this very plain.[7] As an agent the utility exercises the right of eminent domain, must give an account of its stewardship, is subject to continuous control, is liable for compulsory service, and must coöperate with all other public agents of its principal, the state.

If the competitive theory is to prevail, a utility is worth all it will earn; that is, it is worth its capitalized earnings, and the state commits a crime when it arbitrarily interferes with rates. But as already indicated, the public has abandoned this theory. In fact, since serious attempts at regulation began, we have been trying in vain to combine the competitive theory with the agency theory with disastrous results to the public and with great annoyance to the utilities. The result is a monstrous hybrid of no use to anybody in the world, and with much futile annoyance to both the public and the companies. The utilities remain essentially unregulated, and still operate on the theory of speculative private enterprises, while the true theory of what ought to be the relation of the utility to the public is obscured.

Not for a moment forgetting that our attempts at regulation have in fact been based on valuation, let us survey briefly this attempt and see how far it has led us from sound doctrine and practice.

First, when we started in to regulate, the utilities (with a few exceptions, notably the gas companies of Massachusetts) were generally vastly overcapitalized as a result of unrestrained competition and an orgy of speculation and stock-watering. Much of this capitalization had been put out illegally and vast quantities of it had been issued merely in the hope of possible future earnings, all of it on the theory of competition.

Historical Sketch of Rate Regulation.

The early attempts at valuing utilities were made for the purpose of taxation, capitalization, and for public purchases. Omitting

[7] H. P. Gillette, *Railroad Gazette,* Jan. 10, 1913; Max Thelan, Paper read at meeting of Association of Railroad Commissioners, Oct. 1913.

for the moment the action of the Massachusetts Gas and Electric Light Commission, whose theories of rate regulation have but very recently been reviewed by the courts, let us turn our attention to the theory of rate regulation established by the courts. It was but fifteen years[8] ago that the Supreme Court of the United States in any serious way assumed the right of final word in rate cases, although the right of the state to regulate goes back twenty-two years further, to Munn *vs.* Illinois,[9] 1876.

Time does not permit me to review the cases[10] by which the Supreme Court assumed final authority over rates and established the uncertain doctrine that "A fair return on the fair value of the property used for the convenience of the public"[11] is the chief basis for the determination of the reasonableness and constitutionality of rates. The Supreme Court being the final authority in this matter, until popular opinion compels that court to reverse itself, or until its power in this regard has been changed by constitutional amendment, we are in law committed to valuation as a basis of rate regulation. Hence the present uncertain and unsatisfactory condition.

It should be added, however, that the Supreme Court, while enumerating a large list of things that must be taken into consideration, has wisely refrained from indicating the particular weight to be given to any one of these things, and has been very careful not to lay down any rule whatever for arriving at that fair value. In practice the court has never lived up to its own theory, which is entirely inconsistent with rulings of that court as to the nature and character of the utilities, and equally contradictory of any effective doctrine of public regulation.

But the particular thing in this long list of things to be considered that has caused the trouble is the so-called "cost of reproduction new" of the tangible property *and the business*, under present conditions. That is, not the reproduction of an equally efficient plant, but of an identical plant and that under present conditions. While sound theory denies that any valuation is called for, and holds that any attempt at valuation is subversive of real

[8] *Spring Valley Waterworks case,* 1884, Waite, J.

[9] 104 U. S. 105.

[10] *Railroad Commission cases,* Waite, J. 1886; *Dow* vs. *Beidelman,* 105 U. S. 68. Gray, J. said (1884), "The Court has not means, if it would, under any circumstances, have the power of determining that the rate of three cents a mile fixed by the Legislature is unreasonable.

[11] *Smyth* vs. *Ames,* 1898.

regulation because it rests on the competitive theory, nevertheless this unhappy phrase has had, and continues to have, so large an influence on courts, and therefore necessarily on commissions, that we must give it some consideration.

In the first place, much of the property of any large utility is of a type, and in a location, that nobody would want to reproduce it or to have it reproduced. Why talk about, or consider, or guess at, the cost of reproducing an ox-cart where the work to be done requires a modern locomotive? This theory opens the way for valuing all sorts of abandoned plants, obsolescent equipment, and general junk which ought to be scrapped, such as the horse-car lines of New York City, or such a water system as Syracuse bought, when she entered upon public operation.

In the next place, in the case of the large utilities, there would be no need of having such utilities as we have if the public had not previously recognized, perhaps generations ago, the need of the service rendered by the utilities in question, and had not by inconvenience, expense, franchises, donations, and dedications of land to public use, already established the utilities. For without the utilities the population, wealth, and need for the services in question would not exist to-day.

In the third place, all value in the last analysis rests on human judgment, and human judgment, without any guide from human experience, is of but little value. No one has ever undertaken to reproduce such a utility as the Pennsylvania railroad of today. It ought not be reproduced, and nobody wants to reproduce it. Furthermore, nobody has any sound basis for estimating or even guessing what it would actually cost to reproduce it. In attempting, therefore, to arrive at the cost of reproduction new *as of the present time*, we are reduced entirely to conjecture, and are dependent on a series of mere assumption.

But worse than this, the moment courts and commissions lend an ear to testimony on the cost of reproduction, they are not only trying to decide an important question on opinion testimony, and have not only deserted the realm of fact for the regions of fancy, but they are confronted by one of the most appalling dangers of the unequal distribution of wealth that can be imagined. For, with our weak governments and commercialized society, the combined wealth does in fact hire, and will continue to hire, until the balance of our civilization is shifted, all the men of largest intellect and experience as expert witnesses.

The result is that these men whose professional and financial future depends on the favorable opinion of the companies, and with no possibility of indictment for perjury on mere opinion testimony, and, further, with no practical danger of suffering in public esteem when their testimony is in fact false, place no limit on their fancies or estimates of value. But such men whose veracity has not been formally impeached must either be ignored entirely as incompetent witnesses (a thing virtually impossible under our system of jurisprudence), or they must be given more credence than the less able and less well known witnesses on the other side.

This undue influence is all the more significant from the fact that, with our large business units and concentration of wealth, the experts for the companies are hired in droves. It is currently reported that in the recent Des Moines Gas case the company, which engaged an army of the highest priced experts, spent $150,000 on this little case in the trial court alone,—a case so doubtful that the company did not care to appeal it. No wonder that the presiding justice, McPherson, who has never been accounted hostile to corporations, virtually said that if opinion testimony were not entirely ignored, the decision would have to go to the longest purse, namely, the company. Among other things he said, "Too often we have selfish, partisan, prejudiced, and unreliable experts engaged for weeks at a time, at $100 or more and expenses per day, exaggerating their importance, and making the successful party, in fact, a loser."

Without going into them at length, let me enumerate a few of the absurd claims that arise in connection with the theory of cost of reproduction. Apart from the fact that we are dealing with the guesses of interested parties and not with facts, attention should be called to certain general principles. Generally speaking the tendency has been for prices of labor and material to increase. To base an estimate, therefore, on present or future prices is to give the utility some advantage as compared with the actual cost. Furthermore, each day causes a growth and congestion of population, and requires work to be done under constantly increasing limitations and difficulties. All these facts tend to give a value greatly in excess of the outlay on the present property.

But having deserted history for prophecy, and that in a totally unknown field, and prophecy, too, by parties unrestrained by law or fear, and who have an interest in obtaining as high a value as

possible, it is plain that when we come to the overhead charges and so-called intangibles the gates are open for the highest flights of imagination, warmed by gratitude for rewards of the past and inflamed by gorgeous visions of favors to come. Take the simple item of pavement over mains (about the only claim of the companies never allowed by the courts): most of the gas pipes (the same principle applies to electric conduits) were laid before the streets were paved at all, or when a very inexpensive pavement existed, and when there were no other pipes or conduits in the same streets to be interfered with; but the cost of reproduction as of the present time involves a full allowance for taking up and relaying the existing, expensive, modern pavements, paid for exclusively by the city. Under the existing congestion of traffic, pipes, and conduits, this item alone runs into millions of dollars in a single case. (About two million dollars was claimed by the gas companies of Boston ten years ago; more than a million was claimed in a most recent case,—the Buffalo Gas case, decided by the commission on August 4, 1913.) This alone shows how ridiculous is the whole theory of the present fair value of the property.

It is true the Courts have never made a specific allowance for this particular item, but the claim is always made by the companies, and, insomuch as these courts have never told anybody how they arrive at total values, it is not too much to assume that with the companies in their testimony and their arguments laying all the weight on cost of reproduction (compare the Buffalo Gas case, the Minnesota Rate case, the Green Bay case) and the courts insisting on the private property view of the whole situation, the item really has an influence on the mind of the courts in arriving at a final figure for the "fair value."

Truly, under the dictum of the "fair value" of the property, the companies usually succeed in keeping out of the record any reasonable presentation of the outlay or cost to the companies, and virtually tell the court that under its rulings it is none of the court's business how the companies acquired the property and how much it cost, the companies always insisting, and properly enough, that there is no steady and logical relation between cost and value, and that therefore the cost is not relevant testimony. This leaves the courts nothing but biased opinion, and what Justice Holmes calls the "elusive exactitude" of hypotheses.

Overhead Charges and Intangibles.

But the real difficulties begin when we come to apply the cost-of-reproduction theory to the so-called overhead and intangible values. The claims under these heads are legion, and I cannot attempt even a complete enumeration of them. Under the head are included such expenditures as the companies claim they have made, or more properly, under the cost-of-reproduction theory, they would be required to make to reproduce the property *and business*, which expenditures result in, or would result in, no tangible property. It must suffice to mention a few of the more important items. First comes interest during construction. The claim is that it would take from ten to twenty years, depending upon the magnitude of the utility, to reproduce an important utility, and that interest on the whole cost should be allowed at full rates for at least one half of this time. As a matter of fact, all large utilities—the Panama Canal excepted, and it has taken about four hundred years to build that—have been built piecemeal and put into operation, part by part, as completed, so that no very considerable part of the total outlay was tied up without earning power at any one time. The absurdity of this doctrine was shown in a recent case where the company put in a vigorous plea for interest on the inflated value of the whole system at seven per cent for ten years. Why should it have been for ten years, rather than for five, or for twenty? How closely does any sane person suppose that the claim in this case corresponds to the loss of interest actually suffered by that company in the building up a great railroad system in the course of a whole generation.

The second important item is charges for engineering. After ballooning the general value, the cost-of-reproduction theory, in the judgment of the attorneys for the company, requires a large percentage on the total value so found for general engineering. That this relates to the land of dreams and not of realities appears at a glance when we consider that great systems are all built up piecemeal, and that we have, for all but the very earliest units, the engineering usually done by the operating staff which looks after the extensions and then charged to operating expenses. In fact, the moment that we depart from the actual expenditures as shown by the books of the company, when these are properly kept, we are up in the air, and estimates offered have no relation to anything in the heavens above or the earth below. The same line of reasoning applies with equal force to some minor claims such as

general organization, promotion expense, legal expenses and contingencies, sale of securities, contractors' profits, and all through the dismal and appalling list of claims that are presented in every valuation case. As already intimated, the facts are, that, save for the small expense at the very beginning, all of these services are performed by a regular salaried staff, whose salaries are *paid out of operating expenses* while the plant is being built up and put in operation piecemeal.

Cost of Developing Business, Going Concern, and Good Will.

But we come to a much more important item, and one that rests on fundamental theory, when we take up the subject of "going value," early losses in operation, and cost of *developing business*, or whatever name we choose to give to the intangible and elusive creature. In this same category are to be included "good will" and "franchise values." The question of depreciation also is inextricably tied up with the cost of developing business.

Taking the franchise and good will claim first, it has been both legally and economically determined that there can be no good will where the customer has no choice, as in the case of a monopoly, —and the whole theory of regulation rests on the assumption of monopoly. Yet the companies always make claims under these heads, and, insomuch as the court admits evidence on this point and has no rule to guide it, the claims doubtless have some influence on the final judgment. In the case of franchise contracts, which include a fixed rate of charges, there of course can be no regulation of rates. In such cases the value of the franchise is a simple matter. It equals the capitalization of the net earnings, at a proper rate, in excess of a fair income on the outlay of the companies. (The question of the increment in land value will be taken up later.) But such franchises are of course absolutely at variance with any sound theory of rate regulation. Where such valid franchise contracts do not exist the franchise has no value, for under proper regulation of rates there will be no excess of net earnings above a fair return on the outlay of the company.

In this connection, I believe a careful reading of the recent decisions of the Supreme Court will convince any disinterested person that the court has already discovered that contract ordinances are inconsistent with the modern theories of regulation, and that the courts, state and federal, are moving very rapidly to a point where, without any formal reversals, they will find a way to abolish most

of the existing franchises by a strained interpretation which leads to the conclusion that the franchises were invalid[12] from the beginning, for lack of power on the part of the municipality. When that happy day comes the way will be clear for real regulation, provided we can get back to the sound theory of principal and agent, and consequently away from the pretenses of valuation.

I have now shown that the true relation of the utility to the state is that of agent to principal, a relation in which all risks of loss legitimately fall upon the principal and not upon the agent, and all gains above just compensation for services and outlays accrue to the principal.

It now remains to show how this doctrine of principal and agent has been vitiated by our court rulings in regard to property rights in dealing with the three main items of, (1) "going cost," or "going value," or cost of developing the business; (2) surplus property acquired out of earnings in excess of a fair return, and (3) the unearned increment in land,—of chief importance in connection with railway terminals under the dominating influence of the theory of cost of reproduction. Courts and commissions have included not only the estimates of reproducing the physical property but also the cost of developing the business. The point here is the treatment of losses in the early years of operation. The companies have insistently, correctly, and successfully contended before courts (commissions, if they are to be more than mere voices of protest crying in the wilderness, must, perforce, follow the courts in this) that nearly all new enterprises in the early years of operation fail to make reasonable, fair, or average earnings. Furthermore, if private capital is to be induced to go into this business in quantities commensurate with the public needs of a progressing civilization, all will admit that these early losses must be repaid to the owners at some time and in some way. It must be further admitted that in the present state of popular opinion the public looks largely at average returns, and would be somewhat reluctant, if the issue were placed fairly before it, to allow large enough returns in the future to be a fair offset for early losses which have not already been completely liquidated by later returns.

But granted that such losses, if not already recouped by the

[12] See the *Home Telephone and Telegraph Co.* vs. *The City of Los Angeles,* 211 U. S. 265, Moody, J., and cases cited therein. Many, but by no means all, state decisions point in the same direction. See decision of Judge E. R. Stevens in case of *Milwaukee Elec. Railway and Lighting Co.,* October 12, 1912; *Detroit* vs. *Detroit Citizens' Railway Co.,* 184 U. S. 368.

utility, should fall on the consumer and be provided for in temporarily higher rates or some other way, the question still remains whether we should amortize them out of earnings in a reasonable number of years, or whether we should violate the very meaning of language and add these losses to the value of the existing property, thus arriving at a value which will sooner or later be represented by securities to the full, or whether we should insist on a proper use of terms but allow a higher scale of charges and consequently a higher rate of return on actual outlay, and thus compensate for early losses. In the one case the loss will be compensated within a reasonable time and disappear from the account. In the other case the loss will be capitalized and be set up as a claim for additional earnings to all eternity. But worse than this, losses, if once capitalized, result in the worst form of stock watering, and we have lost our bearings in any future dealings with the company and shifted the whole problem to a false basis.

It should not be overlooked, either, that this item is vitally connected with the subject of depreciation and not only opens the way for capitalizing worn-out, obsolete, discarded, and useless property, but, in the absence of any proper separation of investment charges from operating expenses, it opens the way for claims for losses caused by reckless and extravagant, or even dishonest management. This practice, resting upon a science of guessing, incites to excessive estimates and claims as to the extent of any and all of these losses.

The courts have uniformly allowed for this item and have usually allowed for it in the capitalization. The Wisconsin commission has gone further than any other in this, and has been even more liberal than the federal courts in the amounts allowed.[13] In the Green Bay Water Case, they enter upon a long discussion of the method of finding "going value" and other intangibles, chiefly on the cost-of-reproduction theory.

Of what use is valuation when we go to such lengths? I have already shown that such so-called valuations rest on interested assumptions and hypotheses, and we have not yet found any limits to the amounts of value that may be *invented* in this way.

It would be interesting, if time permitted, to show how the

[13] *In re Cashton Light & Power Co.*, 3 Wis. R. R. C. R. 6; *In re Appleton Water Works*, 6 Wis. R. R. C. R. 97; *In re Manitowoc Water Works*, 7 Wis. R. R. C. R. 71; *In re Kaukana L. & P. Co.*, 8 Wis. R. R. C. R. 409; *In re Green Bay Water Co.*, 12 Wis. R. R. C. R. 241.

courts, being unduly burdened and not expert, are unconsciously influenced by the court commissioners who are usually not expert and are often biased, and in no proper sense responsible for their findings.

Another subordinate item of the same general nature is that of discount on bonds. Under the theory of cost of reproducing the business, the amount of the discount on bonds finds its way into the value and later into the capitalization. With the unrestrained pouring out of watered securities this becomes a serious menace to the public rights.

The limit, up to the present, to which this vagary has carried us is found in the claims of the companies in the recent Superior, Wisconsin, rate case.[14]

The commission's engineers, on their well-known liberal principles of estimating the cost of reproduction, found the value of the combined plants to be $1,349,523. This, of course, includes contingencies, interest during construction, organization expenses of all sorts, contractors' profits, and so on. The company demanded an additional value for rate purposes of $182,734 for accrued and unmet depreciation *on existing property*, $202,200 discount on bonds, $5,448 on organization expenses, $24,914 for gas connections which they do not own, $92,516 on property previously discarded, or a total addition of $508,085, or 36 per cent of the value, not of the investment in the physical plant, but of the hypothetical cost of reproducing that plant. Does any one suppose that any private business could borrow money on the security of the items listed above? Or could any economist by any flight of imagination ascribe value to any of these items? Yet our learned courts and tethered commissions find no difficulty in ascribing value to all of these items, and saddling a charge to pay an income upon them on the public to the remotest generations. So far have economics and law parted company, under the persuasive influence of attorneys, accountants, and engineers! Nothing but getting back to the sound doctrine of prin-

[14] In this case, it is true, the commission allowed a value of but $1,360,196, of which $161,697 was for past deficits, $100,000 for discount on bonds, and 12 per cent on the cost of reproduction for engineering. It refused to allow for the admitted depreciation of about $30,000 on the land, and affirmed its oft-repeated statement that, "The cost of reproduction of a plant usually plays perhaps the most important part in determining its value."

I am not here, however, chiefly concerned with the amounts allowed, but with the methods and principles involved. 10 W. R. C. R. 735, 739, 741. Case decided Nov. 13, 1912.

cipal and agent and the consequent removal of these industries from the realm of speculative industry can ever remedy this abuse.

Property Acquired out of Surplus Earnings in Addition to Fair Dividends.

First, as Chairman F. E. Baker says, by surplus we mean "that which remains out of income after providing for operative and maintenance cost (including depreciation) together with reasonable dividends and interest on legitimate debt." This definition of course raises the question of appreciation of land, the so-called unearned increment, and that of donated property, which will be considered later, and ignores the idea of principal and agent. It is perhaps unnecessary to call attention to the fact that the existence of a real surplus or, if one exists, the extent of the same, cannot be determined from the balance sheet. The relation of the average balance sheet to facts is about the same relation that the value found under the theory of cost of reproduction has to realities, for under whatever theory of corporate management the assets are inflated the liabilities must be correspondingly inflated to attain a balance.

Nor does the existence of a real surplus prove or imply any impropriety, moral obliquity, or desire to deceive on the part of the utility managers. Any real surplus may be due to skill in the management, or to circumstances over which the management has no control. The actual existence of any surplus, as well as its causes, can only be determined by a careful analysis of all the facts in any given case. Furthermore, the creation of a surplus in a prosperous company cannot be prevented without injury to the service by any regulation however wise and effective. For the exact effect of any system of rates cannot be determined until after the event, and too close an estimate beforehand by a regulating authority not only is likely to be thrown out beforehand by the courts, but, if enforced, hampers the company with resulting injury to the public.

The question is, under our definition, where a surplus exists in a public utility, has the public any interest in it? Under our law there can be no doubt that the surplus is the property of the company, and in law it is not in any way segregated from property contributed by the share holders, or that earned from which fair dividends are paid. But in this connection we should never forget the right to amend and repeal charters or to require utilities to

render service for a just compensation. By definition, if such surplus is divided among the stockholders, directly or indirectly, they have received an unduly large compensation.

While the significance of this item is found in the case of the railroads, the case can be more profitably studied in the case of the Massachusetts gas companies. When the Massachusetts Gas Commission began operations, in 1885, it found a well traditionalized rate of ten per cent prevailing. All of the more important companies had enormous surpluses and had for years been making nearly all extensions of plant from surplus earnings. In fact, the companies as a whole were assessed for purposes of taxation for a considerable sum in excess of their capitalization. The reason was very simple. Prices had for a long time been purely traditional and wholly unregulated. There had been no publicity in the affairs of the companies; population and wealth had increased rapidly; improved processes had also greatly lowered the cost of manufacture and distribution. Profits were relatively enormous. The companies had been honestly but very conservatively managed locally by their real owners. The Commission naturally, but, as I believe under all the circumstances, mistakenly encouraged[15] and commended such surplus, insisting that it secured present dividends against all kinds of hazards and assured the keeping of the plants in the highest state of efficiency by enabling them to obtain needed capital in abundance at the lowest cost. It was further urged that it would keep prices steady, or at least would, with advantage to the public, enable the companies to try experiments in price reductions which they would otherwise fear to make.

The Commission has from that day to this held steadfastly to this view, but the advent upon the scene of the Huns and Vandals of the speculative world under Addicks, backed by the courts' theory of property rights, has essentially prevented the Commission's giving the public any financial advantages from this theory.

[15] *In re Springfield Gas Co.,* Am. Rep. 1894, pp. 7, 8: "The policy seems to have been to maintain the capital on a level with the construction account by declaring dividends to the amount of its increase and issuing new stock (for cash) for the same amount." *In re East Boston,* Ibid. p. 9: "The ordinary demands (for extensions) which a progressive management desires, and is bound to meet, may fairly be provided for out of the income when the price of gas has not been so high as to be burdensome." "It (surplus) proves advantageous to the public by making a low price possible, and to the share holder by adding security to his investment."

If the experience of Massachusetts teaches any lesson, it is that once an important surplus has been accumulated in the present state of law and business ethics in America, it will be, under the cost-of-reproduction theory, the practices of juggling the accounts of companies held captive by absentee holding companies, or some other invention of the lawyers and engineers, be capitalized, and the public will be made to pay as large a rate of income on such property as if it had been contributed directly by the stock holders.[15a] But such dividends to the stock holders on this surplus is a denial of the theory of regulation and of fair compensation and of the recognized legal duties of such companies.

The question of the surplus in Massachusetts reached a crisis in the Haverhill Gas Company Case, where, fifteen years ago, the Commission undertook to give the public a share in this unparalleled surplus by a compulsory reduction in the price of gas. The company still charges the old price and earns about 34 per cent annually on its share capital. The matter has been in the courts in one shape or another for all these years. The Commission within the last few weeks won an important decision from the Supreme Court of Massachusetts,[16] but the company immediately transferred the case to the federal courts, where the merry comedy occupies the center of the stage at the present moment. While the economic issue in the Haverhill case was wholly on the surplus, the legal issue was greatly involved. But in the Fall River[17] Case, recently decided by the Supreme Court of Massachusetts, the issue was explicitly and distinctly on the surplus. The only question was whether the Commission by its ruling (in this case it refused an issue of stock for extensions which it ruled should be made from surplus) could give the public any share in the surplus. The court not only completely overruled[18] the Commission but virtually abolished the powers of the Commission in this regard by ruling that in such matters the Commission was acting in a quasi-judicial capacity and must proceed on the same principles and virtually arrive at the same conclusion as a court would

[15a] The American Telephone and Telegraph Company alone, so far as the present writer knows, has promised never to attempt to capitalize such a surplus.

[16] *Attorney General* vs. *Haverhill Gas Light Company.*

[17] Decided June, 1913. Reprinted in *Stone & Webster Journal,* July, 1913.

[18] This is contrary to the view taken by the Supreme Court of Wisconsin 136 Wis. N. W. Rep. V, 116, 1908.

do. In this case, the court decided explicitly that this was not in form or substance a scrip dividend, and thus wiped out all legislative attempts to prevent securities from being issued directly or indirectly except for property needed by the company or for refunding issues for such purposes. This company had, after paying 12 per cent regular dividend for years, distributed its surplus in the shape of extra dividends, and then immediately came to the Commission for an issue of stock for extensions.

Does anybody suppose that any court, much less the Supreme Court of Massachusetts, if it had all the facts before it, would declare reasonable a rate that in the judgment of the court would result in dividends as large as recently paid by the Fall River Company? Yet such dividends are paid with the sanction of the court, twenty-seven years after the State in the most solemn way has declared by statute that rates must be reasonable and has set up the state commission to enforce such rates. Furthermore, this surplus so divided, so far as the record shows, had been for the most part accumulated since the commission was established. This reminds one of the condition of the land laws in England[19] in the middle ages, where it became a fact that one who violently and illegally got possession of land stood a better show in the courts of maintaining his claims to the land than the unquestioned owner of the land who had lost possession. Hence the saying, "Possession is nine points in the law."

Surplus and Unearned Increment in the Case of the Railroads.

While no important new theories appear in regard to surplus earnings and unearned increment in the case of the railroads, the magnitude of the financial interests involved and the overwhelming importance to the public of a right settlement of this matter justify some special consideration of these subjects.

It is not disputed that (with the exception of very recent building) the American railroads were chiefly built from the proceeds of bonds and public subsidies of land and money. The stock, and often more, was water and represented anticipated future gains. Without for a moment accepting the accuracy of the hypothetical values now placed upon them under the theory of the cost of reproduction, it is probable, if the roads are granted the fair market value of their lands today, through this increase of value and the surplus earnings invested in plant, all the great railway systems

[19]Sir Frederick Pollock, *The Land Laws*, p. 80.

are undercapitalized. It is equally plain that under the prevailing doctrines of property rights and cost of reproduction, the railroads may indefinitely absorb the future social value caused by the increasing population and wealth. If these doctrines are to continue to hold, there can be, in fact, no regulation of rates, and the roads can achieve their apparent desire to make the public pay in rates for all extension and improvements of the system; can then capitalize this surplus, and draw an average, or fair, rate of income on it for the sole benefit of the stockholders.

In view of such a possibility, what becomes of the legal doctrine that public service corporations are public agencies and, in the case of the railroads, endowed with the sovereign power of eminent domain solely for the public advantage? Where under such a system is there room for the doctrine that rates must be reasonable and the service rendered for a just compensation to the private owners? Will not this lead us to the fulfilment of that happy doctrine of the railroad owners, so thinly veiled, that they are really entitled to all the difference between what they charge the public for services and what it would cost the public to have the same services performed by the transportation agencies employed before the advent of the railroads?[20]

The extent to which this surplus has grown in recent years is shown by figures collected by the Interstate Commerce Commission. In the Western Rate Advance Case[21] the commission asserts: "Notwithstanding the unquestioned liberality of the policy of the railroads toward themselves in charging maintenance expenditures to operating expenses, the carriers of the United States have accumulated unappropriated surplus amounting to $800,642,923, of which $606,536,556 has been accumulated in the last ten years (1899-1909)—that is an increase of 312 per cent in surplus with an increased mileage of 36 per cent." The Commission found that the six roads in this case had increased their surplus in ten years from $108,000,000 to $242,000,000,—that is by $134,000,000, or an increase of about 125 per cent. The Commission takes exactly the view held by the Massachusetts Gas Commission on the inter-

[20] See speech of J. J. Hill, *Railway Age Gazette,* Dec. 20, 1912, p. 1182, where he says: "If the freight and passenger rates in force in the Great Northern system in 1881 had remained unchanged until 1910 there would have been collected from the public $1,267,411,954 additional." In the same connection he says that railroads "have shared their gains liberally with the people through rate reductions."

[21] 20 I. C. C. R. 332.

est and equity of the public in this surplus and upon the impropriety of its being capitalized or made the basis of increased rates or of its being alienated. After calling attention to the fact that the Commission has no power over capitalization, it remarks:[22] "Since we cannot declare that accumulated surplus shall not be capitalized, the adoption of such a plan rests entirely with the carriers and the volume of such surplus as a public trust fund depends entirely upon their own policy and good faith."

This is certainly true as the law now stands. Is it not time that the economists took this matter seriously in hand, and proclaimed that the good old legal maxim that no man is fit to be judge in his own case is equally sound in economics, and that this matter cannot safely be left to be determined by the utilities themselves?

The Burlington road in this case took the traditional ground that it was none of the business of the public where the road got its property, that it demanded its constitutional property rights, and rates that would give it a fair return on the cost of reproduction of its property. In fact evidence on any other point was put in over the protest of the road.

The Commission found that in the case of this road the owners had contributed towards the enterprise $258,000,000 (stock and bonds). The company on the theory of cost of reproduction claimed a value of $530,000,000, or a surplus of $272,000,000, or a surplus of more than 105 per cent. The Commission, after calling attention to the fact that the Supreme Court has never ruled on this point, says that to grant the claim would be "to guarantee forever an additional field for investment for the carriers without diminution of the rate of earnings." In other words, it would be to make the patron pay more in the future, and forever, because he had paid an unreasonably high rate to create this surplus.

Of the surplus of $272,000,000, the Commission finds that $150,000,000 is due to the increase of land values, and $122,000,000 to property acquired out of earnings. Yet this surplus, under our system of jurisprudence, is made the distinct basis of a claim, not for maintaining, but for actually increasing rates. This is consistent with accepted theories of valuation, cost of reproduction, and the fair value of the property. Is it consistent with any sound theory of regulation, or with the doctrine that

[22] Ibid, p. 26.

the railroad is a public agency for meeting imperative needs of an increasingly complex civilization? Does anybody suppose that the public anticipated any such result when, by an act of the sovereign power of the state, it dedicated these lands to this public use, and declared that rates should be reasonable?

To state the case in another way, does anybody suppose that if the state had built this road itself, as it had both a moral and legal right to do, the public would ever have seriously considered the raising of the rates on this road to provide an income on value thus created from either surplus earnings or from the increase in land values caused by social progress? Yet this increase is the logical outcome of the route we have been travelling. Cannot anyone see clearly that to continue on this road is to give the utilities all the chance for speculative gains that exists in purely private business, at the same time that we, in fact, under the theory of regulated monopoly and the capitalizing of losses, insure them against all losses in case the venture proves unprofitable? In short, we have arrived, from the standpoint of the companies, at the happy maxim of "Heads I win, tails you lose."

To resume briefly: when the public first began to realize the importance of the utilities to the public welfare (more particularly after the Supreme Court declared the industries "affected with a public interest" in 1876), the public desire centered about the attempt to prevent the companies from earning dividends on watered stock. In attempts to carry out this public desire, the courts invented the theory of fair value of the property. This necessitated a valuation of the property. The courts in this situation sympathizing with property rights and vested interests, and innocent of economic learning and without proper facilities for making scientific investigation, and, also, finding themselves overloaded with work, permitted the companies to foist upon them the false theory of cost of reproducing the property *and business* and thus caused the emphasis to be thrown on rates rather than on capitalization.

While it is true that the courts have never laid down a rule as to the part that cost of reproduction should play in valuation, such theories, as I have already shown, occupy nearly all the evidence in the cases, and constitute the bulk of all the arguments of the attorneys for the companies. Beyond doubt, they have, in fact, so far been given overwhelming influence in the decisions. The only hope at this point is that the courts, having never laid

down any rule, and, consequently, never having revealed the working of their minds, have left the gate wide open for a graceful retreat as soon as they wake up and realize what their practices have led to.

There is no hope through regulation till there is such a reversal, in fact, if not in form. Unless such a change is speedily brought about we are sure to move rapidly towards public ownership and operation,—a condition for which our traditions and form of government are at present ill adapted.

The companies have always laid great emphasis on the hazards of the business. Nothing could have been more hazardous than investment in this field when so-called competition, real and potential, was unrestrained. But under the doctrine of regulated monopoly these risks have been greatly lessened, while under the practice of capitalizing losses the companies have in large measure had their real, and in many cases merely alleged, losses made good and have been allowed to capitalize the same. They have thus been assured of an income on them for all time, while they have been permitted to retain all their speculative gains in case of successful ventures.

Two important points I have been unable to discuss. I digress for a moment to throw out some queries in regard to them: I have shown that the capitalizing of losses (without material reduction for losses caused by recklessness and extravagance, or even requiring actual proof of the losses) amounted in fact to a guaranteeing on the part of the public a fair rate of income on the investment from the beginning. My query is, would it not be more expedient for the public, under the rule of requiring a certificate of convenience and necessity for each enterprise, to guarantee directly and formally a fair income rather than to reach the same practical result by an occult and circuitous process?

Another question touches a more fundamental matter. We have left these industries in private ownership on the traditional ground of the value of private initiative. Have we ever stopped to analyze whether or not such initiative does not involve to a higher degree than we have yet realized, and even to a higher degree than is safe in such vitally necessary public functions, the element of speculation? But a still more profound question arises at this point. It is admitted by all competent students that we have as yet developed no commissions with sufficient legal powers, and expert enough, strong enough of backbone, permanent enough

in tenure, with large enough staffs of sufficiently expert employees, to keep watch over these companies closely enough to prevent the speculative gains of the owners.

I close with this query: Should we be able to overcome the present difficulties on these points, and get power enough over the companies to make regulation on the only sound doctrine of principal and agent really effective, may we not find that we have so far interfered with the advantages of private ownership by destroying the chance for speculative gains as to have wiped out all the important differences between the efficiency of public and private ownership?